Application No. 09/756,563 Response to Office Action of May 3, 2004

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) In a communications network having a plurality of users devices competing for network resources, a method for allocating the network resources comprising the steps of:

determining a set of distribution parameter associated with each of said plurality of users; transmitting receiving at a network resource manager, from each of said plurality of devices users to a network resource manager, a request for network access, and an estimated set of a first set of distribution parameters, associated with a particular one of said plurality of users; for the distribution of the periods of time when the device is active and a second set of distribution parameters for the distribution of the periods of time the device is inactive;

predicting whether sufficient network resources exist to accommodate said request based on a plurality of said estimated set of distribution parameters the first set of distribution parameters and the second set of distribution parameters for each of said plurality of devices; and allocating the network resources in accordance with said prediction.

- (Currently Amended) The method of claim 1, further comprising transmitting, from said network resource manager to said plurality of users devices, information indicative of the allocation of the network resources.
- 3. (Currently Amended) The method of claim 1, wherein said step of allocating network resources comprises allocating network resources in a cellular telephone network and further wherein said plurality of users devices, comprise a corresponding plurality of cellular telephones.
- 4. (Currently Amended) The method of claim 1, further comprising providing a preemption process to allow a high-priority user device to preempt service from a low-priority user device.
- 5. (New) A network resource manager for allocating network resources comprising:
 a demand prediction processor operable to store for each of a plurality of devices coupled
 to the network resource manager a first set of distribution parameters associated with the

Application No. 09/756,563 Response to Office Action of May 3, 2004

distribution of the period of time when the device is active and a second set of distribution parameters associated with the distribution of the periods of time when the device is inactive, the demand prediction processor further operable to calculate, upon receiving a request for network access, an estimated probability of whether each of the plurality of devices will be active or inactive; and

a network allocator coupled to the demand processor, the network allocator operable to receive the estimated probability and to generate network resource allocation decisions based on the estimated probability.

- 6. (New) The network resource manager of claim 5, wherein the network resource allocation decisions are sent to each of the plurality of devices.
- 7. (New) The network resource manager of claim 5 wherein the network resource allocation decisions are stored in a decision history database coupled to the network allocator.